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February 27, 2007

A.A. Linero  
Program Administrator – Permitting South  
Bureau of Air Regulation  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

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CEMEX Cement, Inc.

DEP File No. 0530010-029-AC (PSD-FL-384) Proposed Kiln No. 3

Response to Request for Additional Information dated November 22, 2006

*Supplemental Response for Item 1*

BUREAU OF AIR REGULATION

Dear Mr. Linero:

This letter provides a supplemental response to our response to your Request for Additional Information dated November 22, 2006. The information request item 1 is reproduced, and a response follows this item.

This response letter is certified by a professional engineer registered in the State of Florida, using the correct seal in compliance with the applicable requirements of the Florida Board of Professional Engineers.

1. Please provide more specific details of which type of KHD calciner design is likely to be used.

**Response:** The preheater/calciner design that will most likely be used for Kiln No. 3 is a five stage preheater with a PYROCLON® low-NOx calciner and a PYROTOP® compact mixing chamber as shown in Drawing 500-14-02-001 of Attachment No. 1 to the Technical Report submitted with the original permit application. The calciner is an in-line calciner of the “strand” design. Combustion air from the clinker cooler is supplied through one leg of the calciner referred to as the tertiary air duct or the fresh air duct. The second leg of the calciner is the riser duct from the kiln. Figures 1 and 2 from KHD further illustrate the calciner and preheater configuration.

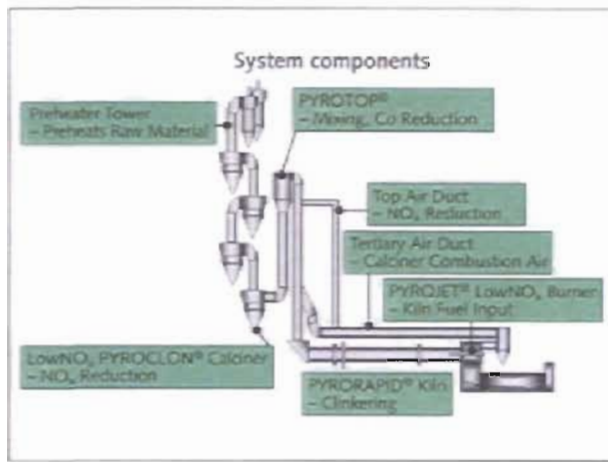


Fig.1 – Components of pyroprocessing system

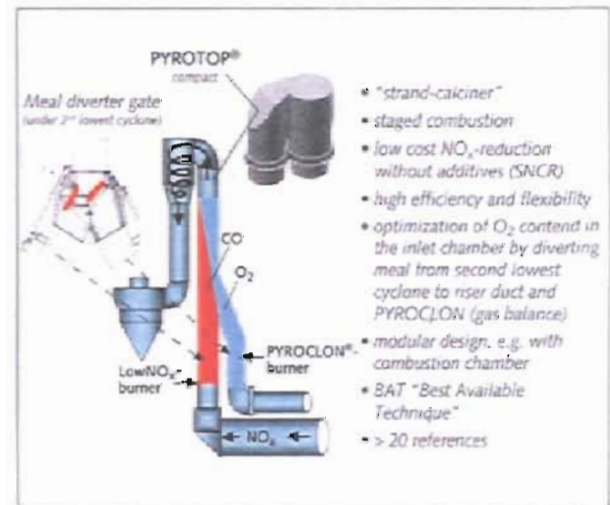


Fig. 2 – PYROCLON® LowNOx Calciner

The tertiary air duct will have an in-line PYROCLON® burner fired with coal and/or petroleum coke. The combustion in this leg of the calciner will be under oxidizing conditions with the temperature controlled by raw meal introduced from the fourth stage cyclone (the second lowest cyclone).

The riser duct will incorporate an in-line low-NOx burner. This burner will be fired with coal and/or petroleum coke. The combustion at this burner can be under reducing conditions to control NOx generated in the kiln. The firing conditions of this burner will be balanced with the SNCR system to assure the NOx emission limit is achieved. Meal from the fourth stage cyclone is also introduced in this leg for temperature control.

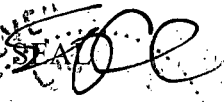
The two legs of the calciner join and rise to the PYROTOP® mixing chamber. Prior to reaching the PYROTOP®, a top-air duct introduces hot combustion air from the tertiary air duct to provide oxygen necessary for the burnout of carbon monoxide and products of incomplete combustion from the low-NOx burner in the riser duct.

The outbound leg from the PYROTOP® mixing chamber drops down and enters the fifth stage cyclone of the preheater.

Other details of the calciner system have been provided in the original permit application documents.

We are hopeful that this supplemental response letter will make the permit application complete. If further information is required, please contact me.

Sincerely,



Steven C. Cullen, PE  
Koogler & Associates

Consultant to CEMEX

Copies to: Mr. Michael Gonzales, Plant Manager  
Charlie Walz, CEMEX  
Jeet Gill, CEMEX  
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